



Practitioner's Docket No. SAA-39

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Rainer H. Wischinski

Application No.: 09 / 578,132 Group No.: 2121

Filed: May 24, 2000

Examiner: Pham, Thomas K.

For: System for Remote Configuration Monitoring of an Industrial Control System

Mail Stop Appeal Briefs Patents

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

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**TRANSMITTAL OF APPEAL BRIEF
(PATENT APPLICATION—37 C.F.R. § 1.192)**

NOTE: The phrase "the date on which" an "appeal was taken" in 35 U.S.C. 154(b)(1)(A)(ii) (which provides an adjustment of patent term if there is a delay on the part of the Office to respond within 4 months after an "appeal was taken") means the date on which an appeal brief under § 1.192 (and not a notice of appeal) was filed. Compliance with § 1.192 requires that: 1. the appeal brief fee (§ 1.17(c)) be paid (§ 1.192(a)); and 2. the appeal brief complies with § 1.192(c)(1) through (c)(9). See Notice of September 18, 2000, 65 Fed. Reg. 56366, 56385-56387 (Comment 38).

1. Transmitted herewith, in triplicate, is the APPEAL BRIEF in this application, with respect to the Notice of Appeal filed on April 14, 2004.

NOTE: "Appellant must, within two months from the date of the notice of appeal under § 1.191 or within the time allowed for reply to the action from which the appeal was taken, if such time is later, file a brief in triplicate. . . ." 37 C.F.R. § 1.192(a) (emphasis added).

CERTIFICATION UNDER 37 C.F.R. §§ 1.8(a) and 1.10*

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Date: April 30, 2004

Susan Muro

(type or print name of person certifying)

* Only the date of filing (§ 1.6) will be the date used in a patent term adjustment calculation, although the date on any certificate of mailing or transmission under § 1.8 continues to be taken into account in determining timeliness. See § 1.703(f). Consider "Express Mail Post Office to Addressee" (§ 1.10) or facsimile transmission (§ 1.6(d)) for the reply to be accorded the earliest possible filing date for patent term adjustment calculations.

2. STATUS OF APPLICANT

This application is on behalf of

- ☒ other than a small entity.
☐ a small entity.

A statement:

- ☐ is attached.
☐ was already filed.

3. FEE FOR FILING APPEAL BRIEF

Pursuant to 37 C.F.R. § 1.17(c), the fee for filing the Appeal Brief is:

- ☐ small entity \$165.00
☒ other than a small entity \$330.00

Appeal Brief fee due \$ 330

4. EXTENSION OF TERM

NOTE: 37 C.F.R. § 1.704(b) ". . . an applicant shall be deemed to have failed to engage in reasonable efforts to conclude processing or examination of an application for the cumulative total of any periods of time in excess of three months that are taken to reply to any notice or action by the Office making any rejection, objection, argument, or other request, measuring such three-month period from the date the notice or action was mailed or given to the applicant, in which case the period of adjustment set forth in § 1.703 shall be reduced by the number of days, if any, beginning on the day after the date that is three months after the date of mailing or transmission of the Office communication notifying the applicant of the rejection, objection, argument, or other request and ending on the date the reply was filed. The period, or shortened statutory period, for reply that is set in the Office action or notice has no effect on the three-month period set forth in this paragraph."

NOTE: The time periods set forth in 37 C.F.R. § 1.192(a) are subject to the provision of § 1.136 for patent applications. 37 C.F.R. § 1.191(d). See also Notice of November 5, 1985 (1060 O.G. 27).

NOTE: As the two-month period set in § 1.192(a) for filing an appeal brief is not subject to the six-month maximum period specified in 35 U.S.C. § 133, the period for filing an appeal brief may be extended up to seven months. 62 Fed. Reg. 53,131, at 53,156; 1203 O.G. 63, at 84 (Oct. 10, 1997).

The proceedings herein are for a patent application and the provisions of 37 C.F.R. § 1.136 apply.

(complete (a) or (b), as applicable)

- (a) ☐ Applicant petitions for an extension of time under 37 C.F.R. § 1.136 (fees: 37 C.F.R. § 1.17(a)(1)-(5)) for the total number of months checked below:

Extension (months)	Fee for other than small entity	Fee for small entity
<input type="checkbox"/> one month	\$ 110.00	\$ 55.00
<input type="checkbox"/> two months	\$ 420.00	\$ 210.00
<input type="checkbox"/> three months	\$ 950.00	\$ 475.00
<input type="checkbox"/> four months	\$ 1,480.00	\$ 740.00
<input type="checkbox"/> five months	\$ 2,010.00	\$ 1,005.00

Fee: \$ _____

If an additional extension of time is required, please consider this a petition therefor.

(check and complete the next item, if applicable)

- ☐ An extension for _____ months has already been secured, and the fee paid therefor of \$ _____ is deducted from the total fee due for the total months of extension now requested.

Extension fee due with this request \$ _____

or

- (b) ☒ Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

5. TOTAL FEE DUE

The total fee due is:

Appeal brief fee \$ 330

Extension fee (if any) \$ _____

TOTAL FEE DUE \$ 330

6. FEE PAYMENT

- ☐ Attached is a ☒ check ☐ money order in the amount of \$ 330
- ☐ Authorization is hereby made to charge the amount of \$ _____
- ☒ to Deposit Account No. 23-0442
- ☐ to Credit card as shown on the attached credit card information authorization form PTO-2038.

WARNING: Credit card information should **not** be included on this form as it may become public.

- ☒ Charge any additional fees required by this paper or credit any overpayment in the manner authorized above.

A duplicate of this paper is attached.

7. FEE DEFICIENCY

NOTE: If there is a fee deficiency and there is no authorization to charge an account, additional fees are necessary to cover the additional time consumed in making up the original deficiency. If the maximum six-month period has expired before the deficiency is noted and corrected, the application is held abandoned. In those instances where authorization to charge is included, processing delays are encountered in returning the papers to the PTO Finance Branch in order to apply these charges prior to action on the cases. Authorization to change the deposit account for any fee deficiency should be checked. See the Notice of April 7, 1986, 1065 O.G. 31-33.

- ☒ If any additional extension and/or fee is required,

AND/OR

- ☒ If any additional fee for claims is required, charge:

☒ Deposit Account No. 23-0442

☐ Credit card as shown on the attached credit card information authorization form PTO-2038.

WARNING: Credit card information should **not** be included on this form as it may become public.

SAA-39
09/578,132

Date: April 30, 2004

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SIGNATURE OF PRACTITIONER

(type or print name of practitioner)

James A. Retter

P.O. Address

P.O. Box 224, Monroe, CT 06468-0224

(Transmittal of Appeal Brief [9-6.1]—page 4 of 4)



Attorney Docket No.: SAA-39
Serial No.: 09/578,132

#17

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

First named inventor: Rainer H. Wischinski
Serial No.: 09/578,132
Filed: May 24, 2000
Title: System for remote configuration monitoring of an
Industrial Control System
Group Art Unit: 2121
Examiner: Pham, Thomas K.

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BRIEF FOR APPELLANTS

Sir:

This is an appeal from an Office Action mailed 9 Feb. 2004, made final, in response to which a Notice of Appeal was filed on April 14, 2004. This appeal brief is being filed within two months of the filing of the Notice of Appeal.

For all of the reasons discussed below, it is the belief of the undersigned that the claims of the application do distinguish the invention from the art relied on by the Examiner. Nevertheless, the undersigned is always willing to discuss possible amendments to any claims to clarify or resolve any issues related to claim interpretation that may remain after the Examiner has reviewed applicant's brief. The Examiner is strongly encouraged to call the undersigned to discuss making any such amendments.

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I. THE REAL PARTY IN INTEREST

The real party in interest is Schneider Automation Inc., a corporation of the State of Delaware having its principal business at One High Street, North Andover, Massachusetts 01845.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals and interferences.

III. STATUS OF CLAIMS

Per the final Office action and also the subsequent Advisory Action mailed 29 March 2004, of claims 1-7 in the application, claims 1-7 are rejected.

IV. STATUS OF AMENDMENTS

No amendments have been filed since the mailing of the final Office action.

V. SUMMARY OF THE INVENTION

The invention provides a system for providing technical support for remote automation or control devices of an industrial control system (ICS), i.e. of a system that controls equipment used in automatically performing an industrial process (such as making a plastic), including the equipment used in regulating the environmental conditions in which the process is performed. As explained at page 1, beginning line 10, technical support for an ICS is often provided by vendors of equipment used by the ICS, as opposed to the owner of the ICS (who usually also owns the equipment controlled by the ICS). As new ICS equipment becomes

available, including hardware, software or firmware, it is advantageous for the vendor to be able to automatically suggest to an end user/ owner upgrades to the existing ICS equipment, as opposed to, for example, simply periodically providing end users with a catalog of the latest available equipment. The invention makes this possible.

Referring now to Figs. 1 and 2, and as explained in the application at page 4, beginning at line 2, provides a system for remote configuration monitoring of an ICS (20) with the function of determining from the ICS itself what hardware and software equipment is in use as components of the automation or control devices that are included in the ICS (20), and then comparing the equipment with a database (34) of available equipment and automatically suggesting (to the owner of the ICS) specific upgrades. As recited in claim 1, a system according to the invention comprises: a) a device identifier (35), for determining components of an automation or control device (26) included in the ICS (20) by periodically querying the (automation or control) device (26) so as to obtain from the device (26) information identifying at least some of its component hardware, software and firmware, and for providing to a device database (33) the so-obtained component identifications for the device (26); and b) a device configuration manager (36), responsive to the component identifications in the device database (33), and further responsive to available device components stored in a database (34) of available device components, for comparing the installed device components with the available device components and for providing an offer to upgrade installed device components. The offer is ultimately communicated to the owner of the ICS (20), as explained at page 5, line 7.

It is important to understand that the querying performed by the device identifier (35) (which querying is sometimes referred to in the specification as an *interrogating*, such as at page 4, line 9) is a machine-to-machine communication. A system according to the invention is called in the specification a technical support system (TSS) (11) (Figs. 1 and 2), and as explained at page 4, line 7, and page 5, line 10, the device identifier (35), as a component of the TSS (11), either autonomously or at the direction of a technical support provider (17), interrogates/ queries control or automation devices (22) and (26) of an ICS at ICS premises (20). Based on the information provided in the responses, the device identifier (35) updates a database (33) of end user devices and components of devices. In turn, a device configuration manager (36) examines the database (33) of end user devices and components, comparing them with available equipment stored in a database (34) of available device components. If the device configuration manager (36) detects that the owner/ operator might wish to replace or upgrade some equipment, the device configuration manager (36) (either autonomously or under the direction of a technical support provider (17)) sends a message to an end user (27) of the ICS (20) via an engineering workstation (24) operated by the end user, with the message indicating that new equipment is available and offering to replace the corresponding equipment currently in use.

VI. ISSUES

The following issue will be addressed in the argument:

whether the final Office action erred in rejecting claims 1-7 under 35 U.S.C. §103 as being unpatentable over

Ogushi et al. (U.S. Pub. No. 2002/0029086) in view of
Gronemeyer et al. (U.S. Pat. No. 6,363,359).

VII. GROUPING OF THE CLAIMS

Claim 1 is argued, and is the only independent claim of the application. Claims 2-7 stand or fall with claim 1.

VIII. ARGUMENT

A. ERROR IN REJECTING CLAIM 1 UNDER 35 USC SECTION 103

Applicant respectfully submits that the final Office action errs in rejecting claim 1 (in section 4 of the final Office action) under 35 U.S.C. §103, as being unpatentable over Ogushi et al. (U.S. Pub. No. 2002/0029086) in view of Gronemeyer et al. (U.S. Pat. No. 6,363,359).

Claim 1--the only independent claim of the application--recites that the invention provides a system for remote configuration monitoring of an industrial control system, and that the system comprises a device identifier for determining components of an automation or control device included in the industrial control system by periodically *querying* the device to obtain from the device information identifying at least some of its component hardware, software and firmware. The Office action asserts (in section 4) that Ogushi disclose such a *querying*, citing paragraph 32.

Applicant respectfully submits that Ogushi does not in fact teach the *querying of device information* recited in claim 1, from which all of the other claims depend. Paragraph 32 is in full as follows:

The host computer 108 on the vendor 101 side periodically executes processing represented by the flow chart in FIG. 3 to monitor the

operating states of the industrial equipments
106 of the respective factories 102 to 104.

As explained in paragraphs 31-38, the flow chart in Fig. 3 describes a vendor-side computer 108 receiving from a factory-side computer 107 status information for monitoring operating states of equipment in a factory in order to correct problems. (The operating states are different possible error states in which equipment can exist, and also a normal state.) There is simply no teaching or suggestion in Ogushi of periodically *querying* a device to obtain from the device information identifying at least some of its component hardware, software and firmware. All that is disclosed is a vendor-side computer receiving in effect error messages from different equipment at the factory. Not once does Ogushi teach or suggest the equipment indicating configuration information (i.e. its component hardware, firmware, and software).

Further, the Examiner asserts in the Advisory Action that it would have been obvious to one of ordinary skill in the art to first identify the component hardware, software, and firmware. However, such an assertion does not take into account the complexities of an ICS, where each customer and each instance may have a unique combination of hardware, firmware, and software. The present invention is a tool for managing such a configuration; identifying potential upgrades of customer's equipment within the ICS. Ogushi does not look at the configuration, a point that the Examiner concedes in the Advisory Action. Instead, the host computers of Ogushi simply monitor the error status of each machine. In paragraph 0028, Ogushi explains that a common function for error notification resides in each industrial equipment. This allows a common error interface without concern for the underlying hardware, software, or firmware. So, contrary to

the Examiner's assertion, there is no need in Ogushi to identify the component hardware, software, or firmware. Because the purposes of Ogushi are different from that of the present invention, and because an ICS may have a unique configuration (but a common error reporting scheme), it would not have been obvious to one skilled in the art to identify the component hardware, software, or firmware.

Further still, the Office action concedes that Ogushi fails to teach a device configuration manager as in claim 1 (i.e. responsive to component identifications in a device database, and further responsive to available device components in a database of available device components, for comparing installed device components with the available device components and for providing an offer to upgrade installed device components). The Office action therefore relies on Gronemeyer for such a teaching. As made note of in response to the Office action preceding the final Office action, and the assertions of the present Office action notwithstanding, Gronemeyer nowhere teaches having a device configuration manager compare a database indicating component identifications for an automation and control device with a database of available upgrades as the basis for making an offer to upgrade installed device components. This is because Gronemeyer, in contrast to the invention as in claim 1, does not teach configuration monitoring, but instead teaches only obtaining from a client information about equipment/ software used by the client in order to make a sales pitch. Since Gronemeyer does not teach configuration monitoring, it nowhere teaches keeping a database of equipment in use by an automation or control device--a database that would only be kept in case of performing configuration monitoring--and so does not teach comparing such a database with a database of

available upgrades. (In other words, even if Gronemeyer arguably teaches a data store of available upgrades, the server of Gronemeyer is not performing configuration monitoring, and so it can throw away the information it obtains from a client once it makes its sales pitch to the client.)

Further, applicant respectfully submits that the combination made in the final Office action is without proper grounds. To combine references, as set out in the MPEP at 706.02(j), the Examiner must establish a *prima facie* case of obviousness, which requires first, that there be "some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings," second, that "there must be a reasonable expectation of success," and third, that the combination made in the Office "teach or suggest all the claim limitations." The rationale given in the final Office action for "incorporat[ing] the system of Gronemeyer with the remote configuration management device of Ogushi"--that doing so "would provide for offering the goods or services for sale based on an automatic detection of the client's system configuration"--is merely a statement that such an incorporating would result in the function provided by the claimed invention. *However, the showing required is that the incorporating be suggested or motivated by the prior art, not that it would result in the function (or a function comparable to the function) of the claimed invention.*

In response to the above argument made to the Examiner upon receiving the final Office action, the Examiner asserted (in the Advisory Action) merely that,

Ogushi teaches in paragraph 32 that the host computer 108 is periodically executes [sic] the software on the vendor side to monitor the operating states of the device. Is obvious to one of ordinary skill in the art to realized that in order for the software to monitor the operating states of a device, it must first identify at least the component hardware, software and firmware that are currently exist [sic] in the device because the combination of component hardware, software and firmware are the main elements that used [sic] to operate any device.

Thus, the Examiner's position rests on the assertion that configuration information must necessarily be provided to the host computer in order to determine simply what operating state a piece of equipment is in. Of course this is not true: different versions of software and different models/ components of equipment can all have the same "operating states."

Further, the Examiner misrepresents what Ogushi does disclose. The Examiner says Ogushi teaches at paragraph 32 that the host computer periodically executes software on the vendor side. Paragraph 32 is in full as follows:

The host computer 108 on the vendor 101 side periodically executes processing represented by the flow chart in FIG. 3 to monitor the operating states of the industrial equipments 106 of the respective factories 102 to 104.

So paragraph 32 of Ogushi does not teach that the host computer periodically executes software on the vendor side. Instead, Ogushi explains there that the processing illustrated in Fig. 3, which is performed by host computer 108 on the vendor side, is periodically executed. This processing has the host computer periodically obtain status information from the host computers 107 on the factory side. As e.g. explained in the abstract, the "status information" represents a "trouble state." Nowhere does Ogushi teach or

suggest that the status information/ trouble state is, or contains, configuration information. Corroborating this is the fact that Ogushi is aimed not at configuration management, but "remote maintenance," i.e. fixing problems. While it may be true that in a step of problem diagnosis, a help desk person might ask what version of software a person seeking a solution to a computer problem is using, such information is not necessary to the problem solution. And regardless of what is sometimes done in some situations, Ogushi never once suggests that the status information/ trouble state should or does include configuration information. And Ogushi even gives examples of what is meant by a "trouble state," such as in Fig. 5, at box 206, which shows as an example of a trouble state: "LED is kept flickered in initialization." Such a "trouble state" is in no way indicative of any particular version of software in use. Thus, what Ogushi means by "problem state" is, from the examples given in Ogushi itself, in no way comparable to configuration information, in contradiction to the assertions made by the Examiner as a basis for rejecting claim 1.

For the foregoing reasons, applicant respectfully insists that the final Office actions errs in rejecting claim 1 under 35 USC §103.

D. COROLLARIES OF THE PRECEDING ARGUMENT


It has been argued above that there was error in rejecting claim 1 under 35 USC §103. Accordingly, and as set out in the above grouping of the claims, it is here asserted that there was error in the rejections under 35 USC §103 of all the other claims remaining in the application, namely claims 2-7, since all of the other claims depend from claim 1.

IX. CONCLUSION

For all of the aforementioned reasons, it is respectfully submitted that the final Office action errs in the rejections of all the claims in the application, namely claims 1-7, and the rejections should be reversed. Early allowance of all the claims in the application is earnestly solicited.

Respectfully submitted,

April 30, 2004
Date


James A. Retter
Reg. No. 41,266
Agent for the Applicant

WARE, FRESSOLA, VAN DER SLUYS & ADOLPHSON LLP
755 Main Street, P.O. Box 224
Monroe, CT 06468-0224

(203) 261-1234

Customer No. 004955

X. APPENDIX--THE CLAIMS INVOLVED IN THE APPEAL

1. (Previously presented) A system for remote configuration monitoring of an industrial control system (20), the system comprising:

a) a device identifier (35), for determining components of an automation or control device (26) included in the industrial control system (20) by periodically querying the device (26) to obtain from the device (26) information identifying at least some of its component hardware, software and firmware, the device identifier (35) for providing a device database (33) with component identifications for the device (26); and

b) a device configuration manager (36), responsive to the component identifications in the device database (33), and further responsive to available device components in a database (34) of available device components, for comparing the installed device components with the available device components and for providing an offer to upgrade installed device components.

2. (Previously presented) The system of claim 1, further comprising:

c) a system diagnostics manager (32), responsive to the component identifications in the device database (33), and further responsive to diagnostics information in a database (31) of end user system diagnostics, for providing device status queries, and for updating the database (31) of end user system diagnostics based on responses to the device status queries.

3. (Original) A system as in claim 1, wherein the components of pre-determined automation or control devices are programmable logic controllers.

4. (Original) A system as in claim 1, wherein the device identifier communicates with the components of pre-determined automation or control devices via a wireless access protocol.

5. (Previously presented) A system as in claim 1, further comprising a general technical information database (18), for providing general technical information about products organized by topic, and further wherein the general technical information database (18) maintains a record of requests for information made about a topic, thereby providing feedback on the useability of products.

6. (Original) A system as in claim 5, further wherein the record of requests for information made about a topic includes an identification of the requester.

7. (Previously presented) A system as in claim 1, wherein the device identifier (35) queries the devices via the Internet.